

mean. Also, for an army officer, he proved surprisingly more adept at fiction than many of his successors, and *The Battle of Dorking* became one of the most-reprinted (including a 1940 Nazi propaganda edition) and imitated works of the century.

Clarke cannily distinguishes between the various strands of follow-up to *The Battle of Dorking*, noting the patriots who refought Chesney's conflict with a happier outcome for Britain, the xenophobes who seized upon the new genre to present Britain's national foes as thoroughly verminous scum (although German and French writers did as much for the filthy British) and the real visionaries, like H.G. Wells and Sir Arthur Conan Doyle, who was torn between a delight in conceiving new technologies like the tank and the submarine and a sharp awareness of just how catastrophic such weapons could be.

One among many delightful anecdotes recounted by Clarke of all this paper bloodshed is the creation by William Le Queux of *The Invasion of 1910* (1905) as a serial for Lord Harmsworth's *Daily Mail* (Harmsworth having experimented on a smaller scale with *The Siege of Portsmouth* in the *Portsmouth Mail* in 1895). Le Queux consulted highly-regarded experts and outlined a perfectly sound plan for a German invasion of Britain, only to be told by Harmsworth that "although the strategy might be faultless, it would be bad for circulation... the Germans had to pass through every sizeable town, 'not keep to remote one-eyed country villages where there was no possibility of large *Daily Mail* sales'." As Clarke notes, "the invasion plan was altered to allow ferocious Uhlans to gallop into every town from Sheffield to Chelmsford."

Clarke repeatedly refers to the literature's short-comings as prophecy, but it is hard not to see many of these works Wells's *The World Set Free* invented the term "atom bomb" in 1914) as precursors of what was to come. Nevertheless, Clarke isolates the single greatest failing of all those, like William Le Queux with his interminable tales of Anglo-French invasions and counter-insurgents, who entered the genre; no matter how extensive was the writers' knowledge of new armaments or tactics, with dirigibles and armoured vehicles and wonderful explosive materials, they failed entirely to conceive of the enormous loss of life of the First World War. The well-mannered exchanges of superior fire-power in the run of imaginary-war stories from 1871 to 1914 seem like mere skirmishes when stacked against the appalling bloodshed of a war in which tactics actually consisted not of duels between secret weapon-brandishing heroes but in the simple throwing of

thousands of dispensable men at each other.

"There can be no doubt," Clarke writes, "that the authors of many tales of future warfare shared in the responsibility for the catastrophe that overtook Europe... the best that can be said of them is that they often stood for high patriotic ideals at a time when few had realized how technological innovations would totally transform the nature of modern warfare. Their stories represent the last stage in the brief honeymoon between science and humanity, before military technologies of poison gas, barbed wire and tanks had shown what could be done with war, given the science to do it. At their worst, they perpetuated an archaic attitude to war by helping to maintain the belief that another war would not cause any profound changes in the state of the world."

After giving proper attention to the inter-war rash of embittered or hysterical visions, Clarke pays close attention to the atomic fictions common since 1945, noting the heavy concentration on post-apocalypse adventuring at the expense of actual consideration of the brief nuclear wars that bring about the worlds of action-oriented fantasies like the "Doomsday Warrior" (1984-) series or despairing literature like Huxley's *Ape and Essence* (1949). If there is an omission, it is that Clarke barely mentions the category of "alternate-world" story, in which actual wars are reimagined with different outcomes (which dates as far back as Louis Geoffroy's *Napoleon Apocryphe* of 1841, in which Bonaparte wins), although World War Two, in particular, has been refought with different outcomes endlessly, many times in precisely the spirit of *The Battle of Dorking*, as in the film *It Happened Here* (1966). In addition to the wry and wise text, Clarke has compiled a probably definitive and invaluable bibliography of his subject.

In a world changing so fast that there is already something quaint about the Cold War nightmares of *Warday*, the imaginary war genre is liable to make something of a comeback, perhaps in the guise of the "techno-thriller" as authors wish, like their 19th-century predecessors, to experiment in fiction with gleaming hardware one hopes is rarely used in actuality. Since the recession of the superpower conflict and its attendant nuclear threat has cleared the way for a resumption of the practice of "conventional" warfare, we can perhaps look forward in the near future to stories set in the Middle East, the former Soviet Union or other potential trouble spots as the vagaries of politics and weapons technology open up the possibilities of new nightmares, new story-ideas and new casualties.

(Kim Newman)

The Matter Myth

Chris Gilmore

The Matter Myth: Beyond Chaos and Complexity by Paul Davies and John Gribbin (Penguin, £6.99) is one of those books wherein physicists set forth for intelligent lay people some scraps of the grandeur and glory which is their daily fare. The banquets are well attended, most notably when Stephen Hawking issues the invitations, but having attended several such functions one begins to note that the menu is limited. The reason is twofold. First, the books are written to inform non-scientists (and scientists in unrelated disciplines) of the exciting developments at the leading edge of the field, but as the field is esoteric, background must be provided. Background means historical accounts of cosmology (for the expansion of space), special relativity (for the dilation of spacetime), general relativity (for black holes), chaos theory (for the self-organizing aspect of the Universe), quantum theory (for super-symmetry) and grand unified theories (because that's where the action is all leading). Secondly, because the writers are more concerned with clarity than originality, they treat each other's metaphors as public domain. At some point adjacent to Young's two-slit experiment Schrödinger's cat is trotted out, as are the pirouetting ice-dancer (to illustrate conservation of angular momentum) and the balloon analogy (to illustrate the red shift). Only once all these have appeared can anything new be introduced.

This general similarity makes them harder, rather than easier to review. It's easy enough to note what's new (not a lot, usually; science is incremental, but to the writing of books there is no end). It's also easy to note that this account of Hubble's logic is vivid and well organized, or that account of Alain Prospect's famous experiment illustrates the paradox of non-locality well (or badly), but the scholarly standards relevant in other fields have no force here. An historical or biographical work may be hailed as the standard reference for the next century, or even all time; a new economic theory will be judged by its geopolitical effects when practised. Books of this sort are certain to be looking dated within a decade, more often in half that time. Moreover, their influence is zero: quite apart from the vexed question of how many buyers actually read the later chapters of *A Brief History of Time*, serious theoretical physicists don't bother with them; they keep up (and occasionally slug it out) with each other in the pages of *Nature* and *Science*.

Thus the needs of the general reader/

She turned then and ran, knowing the baby was dead, saving herself. Om-at stood still and watched her run. Slimmer than a waz-ho-don female. Faster. Lacking a waz-ho-don's wide hips and slightly waddling gait. With distance, however, the differences faded and suddenly it could have been a waz-ho-don female running away, dark hair blurred into dark skin. Still watching, Om-at felt that splinter of desire again, and thought of the infant, of what his share would buy.

As the sun was going down, Om-at and Ta-den squatted under a tree not far from camp. In the distance, they could hear waz-ho-don sounds, female voices laughing and talking, males coming through the underbrush in their ones and twos and threes. Every now and again you'd hear a burst of excitement from the females which meant, usually, that someone had come home with a guest gift. Om-at smiled. Shortly, there would be a couple of happy females. Tor-o-don babies were tender eating indeed, and very hard to get. There was enough here, in fact, that he and Ta-den would be able to eat a few tidbits themselves before going into camp.

While he waited for Ta-den to chip a fresh edge on the cutting stone, Om-at turned the dead baby over and over on the moss, dusting it off, admiring its fine plump shape. The little face was a bit dark and distorted, eyes open and bugged out, dark tongue protruding, but that was a minor detail. He spread the little legs and looked at tiny female genitals, wondered what they would have looked like full-grown. Like a waz-ho-don female? Images of various women's genitals formed in his imagination, rekindling that splinter of desire. He wished Ta-den, as patient and meticulous as he was voluble, would hurry up.

Who would he choose? Not Pan-at-lee, of course, one didn't choose one's own mother... O-lo-a? Delicious thought. Or maybe one of the Low Women would be better. They were always willing to present for you, lacking the status simply to lie down.

Crash of vegetation, and there they were. Ko-tan, holding a big stick, looking down at him, eyes angry, a few steps back Mu-lot and Dak-at, empty handed. Empty handed. Ko-tan looked at the tor-o-don baby and his eyes blazed. Commands, quickly barked. The other two scuttled around him, headed for Ta-den, who jumped to his feet, chattering with anger, throwing his stone at them, missing.

Ko-tan pointed his stick at the baby and said, "Give."

Give? Om-at stood, flexing his muscles, hoping Ko-tan would be intimidated, knowing he wouldn't. "No."

Ko-tan hit him over the head with the big stick and Om-at went down, tasting blood in his mouth, knowing his nose must be bleeding. "No." only whispered. Ko-tan hit him again, hard, on one shoulder, then snatched up the dead baby and walked away, snickering, toward camp. Mu-lot and Dak-at let Ta-den go, backing away, then followed Ko-tan. And they were licking their lips, knowing they'd get a little share too.

Moonlight time.

Om-at sat by himself, back against his favourite tree, watching things happen, seething with bitter anger. Anger at Ko-tan. Anger at

himself. Someday, someone would take the power from Ko-tan. Om-at would have liked to be that someone, knew it would never happen.

Up on the hilltop, surrounded by her circles of sleeping women and children, O-lo-a let herself be mated by Ko-tan. For him, she presented, resting on knees and elbows, buttocks thrust into the air, legs spread just so. Ko-tan kneeled behind her, grinning in the semi-darkness, moonlight shining on his teeth and eyes, thrusting slowly, fat belly wobbling back forth, every now and again whispering his pleasure. O-lo-a's face was close to the ground and Om-at knew she would be gnawing at bits of tor-o-don baby.

He imagined himself up there in the moonlight, kneeling behind her, thrusting into the magic depths... growl of anger at the erection that suddenly swelled on his abdomen. Image of himself in some dark forest glade, standing over Ko-tan, hitting him in the head with that same big stick, over and over again until the light in his eyes went out.

He looked away, fury a sickening turmoil in his stomach, forcing himself not to watch. And, tonight of all nights, he would not slink away into the darkness and do it by himself. People knew what had happened, were snickering already. They would laugh aloud if they saw him go.

There.

Not far away on the edge of the woods, another little drama. Lu-don was a strange old cripple, born with those twisted legs, never able to hunt, unable to run fast enough. Once weaned, he'd stayed among the women, listening to them, in the end talking like them, growing ever stranger as he aged. O-lo-a kept him close by, seemed to think there was some special magic in his words. Women's magic, spoken in words no male could understand. Except Lu-don, who shuffled in the dust, dragging one withered leg, hopping on the stouter one, always grimacing with anger.

Just now, he was at poor Pan-sat again. The Low Women would watch and titter among themselves. They sometimes called Lu-don the Last Woman. When they did, Pan-sat was called the Last Woman's Mate. It had taken Om-at a long time to understand what those three words, said right together like that, signified. Women always gave out names, naming their babies at weaning time, men sometimes unable to understand or even say their own names, just learning to recognize the sound.

In the darkness, you could hear Pan-sat crying softly, bent over in front of Lu-don. From this angle, all you could see was Lu-don's crooked shoulders and his slowly thrusting hips.

Sitting there, watching, Om-at shivered, glad he was who he was. There were worse things in life than having one's guest-gift stolen by Ko-tan.

The next day Om-at and Ta-den went out hunting again, full of desperate determination. The sun came up a fat orange ball in a sky streaked with a few narrow clouds, stained here and there with fear-red, promising a hot day to come. That would be good. It would keep the other predators still for much of the day, yet would drive the herbivores, who *had* to get out and eat, down to the river, down to the little streams that fed it. Somewhere out there, antelope would be drinking, careless babies wandering away